

**Conscientiousness, Extraversion, and Field Sales Performance: Combining Narrow
Personality, Social Skill, Emotional Stability, and Nonlinearity**

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Conscientiousness, Extraversion, and Field Sales Performance: Combining Narrow Personality, Social Skill, Emotional Stability, and Nonlinearity

Abstract

Although prior research indicated that extraversion and conscientiousness are uniformly beneficial to sales performance, recent evidence suggests that scholars should consider nonlinearity, narrow personality, social skill, and the research context in the personality-performance relation. Further, scholars have found conscientiousness to have inverted U-shaped relationships with performance. Taking these into account, the present study examines the nonlinear relation that the combined conscientiousness facets of discipline and achievement motivation (i.e., disciplined achievement motivation) have with objective sales performance in a predictive study with a nine month time interval. We argue that stable social potency, composed of the activity facet of extraversion, social skill, and emotional stability, will moderate this nonlinear relation in the context of insurance field sales, such that the greatest sales performance will be from those high on both constructs. Our findings support our hypotheses, demonstrating that a relevant social-related trait (i.e., stable social potency) can offset the potential downsides of high disciplined achievement motivation (e.g., perfectionism, and workaholism), helping such individuals to achieve high objective sales. Implications for theory and future research directions are discussed.

Keywords: Conscientiousness, extraversion, sales performance, social skill, emotional stability, nonlinearity, narrow personality

1. Introduction

Sales jobs deserve special attention because of their importance to the success of organizations (Vinchur, Shippmann, Switzer, & Roth, 1998). Field sales positions are especially demanding, as the customer needs to be identified and sought out (Blickle et al,

2012), and rejection is an especially common occurrence when selling service products (e.g., insurance; McManus & Kelly, 1999). Consequently, high levels of persuasive effort, perseverance, and composure under pressure are vital to success in sales positions (Vinchur et al, 1998).

Although conscientiousness has been related to sales performance (Vinchur et al, 1998) and career success (Judge & Kammeyer-Mueller, 2012), at high levels, it can be manifested in behaviors unhelpful to work performance (e.g., workaholism and rigidity, Hmel & Pincus, 2002; Samuel, Riddell, Lynam, Miller, & Widiger, 2012). Given the common refrain within personality research to hire and promote individuals high on conscientiousness and the importance of sales positions to organizations, the sales-related pitfalls of high conscientiousness deserve particular attention. The present study seeks to offset these downsides by interactively combining conscientiousness-related traits with sales-relevant socially-related traits, arguing that those high on both will demonstrate the greatest performance.

Further, personality scholars have argued that performance prediction can be enhanced by examining narrow personality (see Robie & Ryan, 1999), aligning personality with a study's context (Tett & Burnett, 2003), and considering nonlinear relations with performance (e.g., Penney, David, & Witt, 2011). The present study employs each of these approaches, examining the nonlinear interaction of disciplined achievement motivation (i.e., combined conscientiousness facets of discipline and achievement motivation) with stable social potency (i.e., the combination of the activity facet of extraversion, social skill, and emotional stability) in prediction of nine-month-later sales performance in the insurance sales context.

2. Conscientiousness and Extraversion - Narrower Personality in the Sales Context

Within sales jobs, conscientiousness and extraversion have been meta-analytically demonstrated to be the strongest predictors of performance (Hurtz & Donovan, 2000; Vinchur et al, 1998). However, researchers have begun to claim that the personality-performance

relation may be nonlinear (e.g., Penney et al, 2011), and both conscientiousness (e.g., Le et al, 2011) and extraversion (e.g., Grant, 2013) have demonstrated curvilinear, inverted U-shaped relationships with performance. In addition, these associations could be context dependent (Tett & Burnett, 2003) and narrow personality within the overall factor could have different relations with performance (Robie & Ryan, 1999).

Although the trend in empirical personality research is to examine facets in exclusion, theory has emphasized matching the bandwidth and relevance of predictor(s) with the criterion (e.g., Paunonen, Rothstein, & Jackson, 1999; Penney et al, 2011). Further, research (e.g., DeYoung, Quilty, & Peterson, 2007) has demonstrated that the Big Five has three bandwidth levels (i.e., factor, aspect, and facet). Consequently, although our outcome (i.e., sales performance) is not as broad as overall performance, neither is it as narrow as a very specific type of sales performance (e.g., with a particular product, sales context, or customer). Therefore, we endeavored to utilize predictors at a similar (i.e., aspect) bandwidth.

Regarding conscientiousness, based on prior research (i.e., Hurtz & Donovan, 2000; Vinchur et al, 1998), we chose two facets (i.e., self-discipline and achievement motivation) that are contained in the same, overarching aspect (i.e., industriousness; DeYoung et al, 2007) and that we believe are those most relevant to the field sales context, naming their combination *disciplined achievement motivation* (DAM). Self-discipline describes the ability to start and complete tasks (Costa & McCrae, 1992), and, using the O*NET database (Occupational Information Network; Peterson et al, 2001), Sackett, and Walmsley (2014) found that dependability, conceptually similar to self-discipline, was the highest ranked attribute in sales jobs. Similarly, achievement motivation refers to a desire to compete with and attain greater competency than others (Baranik, Stanley, Bynum & Lance, 2010), and it has been linked to many measures of career accomplishment (e.g., decades-later occupational status; Judge & Kammeyer-Mueller, 2012), including objective sales performance (Vinchur et al, 1998; Warr, Bartram, & Martin, 2005).

However, extreme conscientiousness can have negative effects, such as self-critical perfectionism (Dunkley, Blankstein, Zuroff, Lecce, & Hui, 2006) and greater adverse stress reactions to negative feedback (Cianci, Klein, & Seijts, 2010). In field sales positions, negative feedback and rejection from customers is a common occurrence, particularly when selling service products like insurance (McManus & Kelly, 1999). At high levels, achievement motivated individuals can be described as self-focused workaholics, and discipline can become a single-minded rigidity (Hmel & Pincus, 2002; Samuel et al, 2012). Also, research has shown that both self-discipline and impulsivity, conceptually similar to low discipline, have nonlinear relations with outcomes, with moderate levels relating to higher well-being (Carter, Guan, Maples, Williamson, & Miller, 2016) and success (Day & Silverman, 1989) than low or high levels. Thus, it seems that, in isolation, DAM will have an inverted U-shaped relation with sales performance, which is counter to the presumption that high achievement-oriented individuals will produce the highest sales performance (Vinchur et al., 1998).

Consequently, the present study interacts *DAM* with *stable social potency* (SSP, i.e., the combined traits of the activity facet of extraversion, social skill, and emotional stability) in a nonlinear prediction of objective sales performance. Prior research in other contexts has shown that those simultaneously high on both conscientiousness- and extraversion-related traits have the highest work performance (e.g., Witt, 2002; Witt & Ferris, 2003, Study 4). Moreover, personality scholars have argued that the joint influence of multiple traits should be examined (Penney et al, 2011), and that the inflection point for a nonlinear relation with performance could be different between traits (Pierce & Aguinis, 2013). Thus, we contend that, when interacted with SSP, the detrimental effects of high DAM can be offset, creating a positive and strengthening relation with performance for those high on SSP as DAM increases.

Activity describes a desire to remain busy and work rapidly due to feelings of urgency (Costa & McCrae, 1992). Since, in prediction of sales performance, extraversion has shown an inverted U-shaped relation (Grant, 2013) and its credibility interval includes zero (Barrick, Mount, & Judge, 2001), we desired to utilize a specific facet of extraversion, choosing *activity* because, given the demanding nature of insurance field sales (Blickle et al, 2012; McManus & Kelly, 1999), higher activity should be beneficial to sales performance. Moreover, the inability of a study (i.e., Denis, Morin, & Guindon, 2010) to find a significant relationship between activity and task or global performance in a sample including a range of jobs could indicate the importance of context (e.g., field sales). Also, in a large community sample, the latent factor representing activity had the greatest number of negative associations with psychopathology of any of the four extraversion facets (Watson, Stasik, Ellickson-Larew, & Stanton, 2015), showing activity to be the most adaptive extraversion trait. However, at high levels, activity could result in a zeal to rush and hurry through tasks, despite low quality work. Additionally, Hambrick and McCord (2010) found activity to be negatively related to avoidance coping, and, in a sales context, being unable to disengage from a stressful customer situation (e.g., customer reluctance or rejection) could be viewed as too aggressive and/or would be unproductive, reducing performance.

Thus, we believe that achievement oriented salespersons who are highly active also require heightened social skill and emotional stability to engage in more adaptive responses (e.g., acceptance or avoidance coping) to stressful customer interactions, thereby, improving sales performance. A variety of research has shown that personality needs social skill to affect behavior evaluated by others (see Hogan & Blickle, 2013), including objective sales outcomes (Blickle, Wendel, & Ferris, 2010). Furthermore, the combination of activity and social skill is conceptually similar to the (social) potency construct found to be related to objective sales success (Vinchur et al, 1998; Warr et al, 2005).

Emotional stability is helpful to performance in social jobs, as found across seven studies by Mount, Barrick and Stewart (1998). The emotionally stable engage in ways of coping (i.e., adaptive, proactive, and strategic) that are more socially conducive, and they are less sensitive to others' emotions (Doherty, 1997), which should be particularly helpful when managing challenging customer relations that threaten sales. Hurtz and Donovan's (2000) meta-analysis showed that emotional stability had nearly as strong a relation with sales performance as did extraversion. Additionally, emotional control is an important element to being social skilled (Riggio, 1986), and the greatest customer service job performance has come from those high on both emotional stability and extraversion (Judge & Erez, 2007), indicating that, in social jobs, their combination is more helpful to performance than either trait in isolation. Lastly, the highly conscientious tend to experience greater negative affect (Fayard, Roberts, Robins, & Watson, 2012), and, thus, the positive relationship between conscientiousness and performance could improve its strength when augmented by emotional stability (see Penny et al, 2011). This research evidence indicates that emotional stability could be helpful to extraversion and conscientiousness traits in sales contexts.

In short, we argue that when stable social potency (SSP) is low, disciplined achievement motivation (DAM) will maintain an inverted U-shaped relation with objective sales performance. Whereas, higher levels of SSP will create an increasingly positive relationship of DAM with performance, such that those high on both will have the highest performance.

Hypothesis 1. SSP moderates the quadratic relation between DAM and sales performance.

Hypothesis 1a. When SSP is low, there is a curvilinear relation between DAM and sales performance, such that the relation is initially positive but becomes weaker as DAM increases. When DAM further increases, the relation becomes negative.

Hypothesis 1b. When SSP is high, there is a positively growing relation between DAM and sales performance, such that the relation is initially positive and becomes more positive as DAM increases.

3. Method

3.1 Participants and Procedure

The study was conducted with the support of the Human Resources (HR) department of a large German insurance company. HR sent email messages to the insurance agents. The message included the study's invitation, link to an online test, personal login code, and consent to use nine-month-later sales performance. 389 agents were contacted, 165 followed the link, and 114 finished the online test. One year later, HR provided sales performance data (29% participation rate). Of the 114 participants, 15 were female. Participant mean age was 44.6 ($SD = 9.3$) years, having a job tenure of 12.5 years ($SD = 8.2$ years).

3.2 Measures

Disciplined achievement motivation (DAM). To assess DAM, we built a composite from the conscientiousness facets of self-discipline and achievement striving, measured using the respective scales from the German version (Ostendorf & Angleitner, 2004) of the Revised NEO-PI-R (Costa & McCrae, 1992). Each scale is comprised of eight items. Sample items are “*I’m pretty good about pacing myself so as to get things done on time*” (self-discipline) and “*I work hard to accomplish my goals*” (achievement striving). All items are answered on a 5-point Likert scale ranging from 1 = *strongly disagree* to 5 = *strongly agree*. We averaged all items to get an overall DAM score. The composite reliability (Wang & Stanley, 1970) for DAM was .87.

Stable social potency (SSP). We measured SSP by using a composite score built of three constructs, namely, activity, social skill, and (low) negative affectivity. First, we assessed *activity* using the eight items of the activity facet of extraversion of the German version (Ostendorf & Angleitner, 2004) of the Revised NEO-PI-R (Costa & McCrae, 1992).

A sample item is “*My life is fast-paced.*” Items are answered on a 5-point Likert scale ranging from 1 = *strongly disagree* to 5 = *strongly agree*. We assessed social skill with the social skill facet (Kholin et al., in press; Novack & Kammer, 1987) of self-monitoring (Snyder, 1974). This scale consists of nine true (= 1) or false (= 0) items. A sample item is “*I can make impromptu speeches even on topics about which I have almost no information*” (*true*). Finally, we assessed emotional stability by reversing the negative affectivity scale (Watson, Clark, & Tellegen, 1988), since these two constructs are often used interchangeably (see Fortunato, 2004). Negative affectivity is characterized by experiencing negative emotions (Watson & Clark, 1984). The instructions read “...to what extent do you feel this way generally.” A sample item includes “*distressed.*” Items are answered on a 5-point Likert scale ranging from 1 = *not at all* to 5 = *extremely*. All 10 items were reverse-coded to assess emotional stability. We then aggregated all items using their respective scales and computed the averaged overall SSP score. The composite reliability (Wang & Stanley, 1970), which takes into account different scale types, for SSP was .75.

Validation study. To assess the construct validity (Camara, 2003) of DAM and SSP scales while avoiding range restriction (Pearlman, Schmidt, & Hunter, 1980), we conducted a study of 703 employees from a range of jobs, using the German version of the PPI-R (Psychopathic Personality Inventory-Revised; Alpers & Eisenbarth, 2008; Lilienfeld & Widows, 2005). We chose the PPI-R inventory for the validation study because we expected both discriminant and convergent validity with DAM and SSP (Miller & Lyman, 2012).

Specifically, we expected *discriminant validity* (i.e., no substantial correlations) of DAM and SSP with PPI-R subscales *cold-heartedness* (CH, $\alpha = .82$) and *Machiavellian egocentricity* (ME, $\alpha = .75$). The data supported this expectation (r (DAM, CH) = .04, r (DAM, ME) = -.04, r (SSP, CH) = -.05, r (SSP, ME) = -.02; all $p > .05$).

We expected negative convergent validity (i.e., substantial negative correlations) of DAM with PPI-R subscales *carefree nonplanfulness* (CN, $\alpha = .73$), and *rebellious*

nonconformity (RN, $\alpha = .89$). Additionally, we expected, that the negative correlations of these scales with DAM should be higher than the negative correlations with SSP. The data supported this expectation: r (DAM, CN) = $-.58$, r (DAM, RN) = $-.12$, all $p < .01$; (r (SSP, CN) = $-.25$, $p < .01$, r (SSP, RN) = $.02$, *ns*); Δz (r (DAM, CN) vs. r (SSP, CN) = 9.83 , $p < .01$; Δz (r (DAM, RN) vs. r (SSP, RN) = 3.54 , $p < .01$; for comparison of two correlation coefficients from the same sample, see Eid, Gollwitzer, and Schmitt (2011).

We expected positive convergent validity (i.e., substantial positive correlations) of SSP with PPI-R subscales *social influence* (SOI, $\alpha = .85$) and *stress immunity* (SI, $\alpha = .84$). Additionally, we expected, that the positive correlations of these scales with SSP should be higher than the positive correlations with DAM. The data supported this expectation: (r (SSP, SOI) = $.45$, r (SSP, SI) = $.34$, all $p < .01$); (r (DAM, SOI) = $.25$, r (DAM, SI) = $.22$, all $p < .01$); Δz (r (SSP, SOI) vs. r (DAM, SOI) = 5.67 , $p < .01$; Δz (r (SSP, SI) vs. r (DAM, SI) = 3.16 , all $p < .01$).

The DAM ($\alpha = .80$) and the SSP ($\alpha = .75$) scales correlated at $r = .47$, $p < .01$, which reflects that both share the theme of ambition (Hough, 1992). In sum, although DAM and SSP are correlated, the pattern of discriminant and convergent validity coefficients in this validation study demonstrate that both scales tap into different personality domains.

Objective sales performance. To objectively assess sales revenue, we used the company's nine-month-later sales performance data. In general, insurance products with a single acquisition commission (e.g., life insurance) can be differentiated from those with a recurring renewal commission (e.g., auto insurance). To make products (e.g. life & savings, health, property & casualty) with different commission structures comparable between product lines, the organization assigns points to each product sold and aggregates them for an overall sales index/person, reflecting the commission paid to the agent. The organization-developed point system achieves comparability between both single acquisition and renewal commission structures, allowing sales representatives to be compared directly. The average

sales revenue after nine months in our sample was 118,444.88 points ($SD = 86,915.45$). Also, since we had a response rate of 29%, we compared participants and non-participants regarding their sales performance. Our results showed that there were no differences in performance between the two groups.

Control variables. Since research has shown that age (Vinchur et al., 1998), gender (Bowen, Swim, & Jacobs, 2000), and organizational tenure (Ng & Feldman, 2010) can be related to performance, we included these as control variables. To control for its possible quadratic effects as found by Grant (2013), we assessed positive affectivity (Watson et al, 1988), as it is closely related to the other facets of extraversion, such as warmth, gregariousness, and positive emotions (Nemanick & Munz, 1997). Cronbach's Alpha for positive affectivity was $\alpha = .81$.

3.3 Statistical Analyses

Measurement models. To evaluate the independence and distinctiveness of our measures, we conducted confirmatory factor analyses. Recent research has shown that fit-indices of structural equation models generally deteriorate with an increasing number of manifest variables (Moshagen, 2012). Consequently, we built two indicator variables for each construct (i.e., DAM, SSP, and positive affectivity) to reduce the number of manifest variables.

Mplus 7.0 (Muthén & Muthén, 1998-2012) was used to compare two different models. In the first model, the indicators loaded on their respective factors. The fit indices of this model were satisfactory: $\chi^2 = 9.95$, $df = 6$, $p = .12$, $RMSEA = .076$, $CFI = .988$, and $SRMR = .033$. In the second model, all indicators loaded together on one factor. The fit indices of this model were unsatisfactory: $\chi^2 = 105.99$, $df = 9$, $p < .000$, $RMSEA = .307$, $CFI = .709$, and $SRMR = .099$. Additionally, the first model demonstrated a significantly better fit than the second model: $\Delta\chi^2 = 96.04$, $\Delta df = 3$, $p < .0001$. These results support the distinctiveness of the measures used.

Hypothesis testing. To ensure that our dependent variable was normally distributed, we investigated skewness (1.61) and kurtosis (2.84) and compared it to common cut-off values (skewness: ± 2 ; kurtosis: ± 7 , Curran, West, & Finch, 1996), concluding that, although some distortion is present, our measure is normally distributed. Based on Cohen, Cohen, West, and Aiken (2003) and Jaccard and Turrissi (2003), hierarchical moderated regression analyses were conducted to examine DAM's prediction of sales performance and the moderating role of SSP on the DAM – sales performance relation. All predictors were standardized prior to both building the interaction and quadratic terms and analysis. First, the linear effects were entered. Second, we included the quadratic terms of DAM and SSP in our model (Cortina, 1993; Dawson, 2014). In the third model, the linear and the quadratic interaction effects between DAM and SSP were entered. In line with recent views that control variables may hamper analyses and bias results (Becker, 2005), we added our control variables in the fourth model.

4. Results

Table 1 reports the means, standard deviations, correlations, and Coefficient alpha (α) estimates of all variables. The correlation between DAM and sales performance was significant ($r = .19, p < .05$), and between SSP and performance it was non-significant ($r = .12, ns.$), with the estimates being in line with prior findings ($r = .23$ and $.15$, respectively; Vinchur et al., 1998).

*** Insert Table 1 ***

In line with the validation study, DAM and SSP correlated at $r = .47 (p < .01)$. In hypothesis testing, we standardized both scales (Cohen et al., 2003) and controlled for the quadratic effects of both scales (Cortina, 1993). The results for our hypothesis are shown in Table 2. The squared DAM x SSP interaction term was significant in the fourth model ($\beta = .42, p < .05, \Delta R^2 = 4\%$). This effect remained significant when the control variables were entered (Model 5: $\beta = .40, p < .05$).

*** Insert Table 2 ***

The plot (following Dawson, 2014) of the quadratic interaction of DAM is shown in Figure 1. As can be seen, the slope of DAM for high SSP exponentially increases when DAM is increasing and leads to better objective sales performance. The standardized inflection point (Le et al., 2011) for this slope was $-.69$, indicating that the slope turns direction at $-.69$ standard deviations from the mean.

For individuals low on SSP, the relation with objective sales performance initially becomes stronger with increasing DAM, but, near the mean, the slope starts to decrease, indicating that higher values of DAM are related to worse sales performance. The standardized inflection point for the slope at low levels of SSP was $.13$.

*** Insert Figure 1 ***

5. Discussion

The results confirm our hypotheses and extend literature on the personality–sales performance relation in a predictive study over 9 months. The inverted U-shaped relation between disciplined achievement motivation (DAM) and sales performance was moderated by stable social potency (SSP), explaining an additional 4% of the variance beyond main and moderating effects, and these effects remained when including control variables. High conscientiousness can be expressed in behaviors that are especially detrimental to sales performance (see Carter et al, 2016), but we demonstrated that when individuals are high not only on DAM, but also SSP, their sales performance does not deteriorate, but increases, when compared to those lower on DAM. Given the strong suggestion by the research community that practitioners hire and promote individuals high on conscientiousness and the ubiquity of sales positions in the modern economy, perhaps the primary contribution of our study is to show that the sales performance limitations of the highly conscientious (i.e., high DAM) can be overcome when these individuals also possess an above average degree of socially-related traits.

Regarding other contributions, our findings support research indicating the importance of narrow traits (Hogan & Holland, 2003; Robie & Ryan, 1999), social skill (Hogan & Blicke, 2013), relevant context (Tett & Burnett, 2003), and non-linearity (Penney et al, 2011) to the personality-performance relation. Additionally, our study extends this research by revealing the importance of emotional stability to these relations in the sales context. Although prior research has shown that the emotionally unstable are more stressed during social interactions (Kiffin-Petersen, Jordan, & Soutar, 2011), our research extends this literature to demonstrate the *benefits*, within the sales context, of having *higher* emotional stability, delivering greater specificity to our knowledge of its function in social work environments.

Our study's strengths include the use of a predictive design over 9 months, objective sales data, narrowing our context to a specific sales position within a particular organization, controlling for positive affectivity to rule out the possible influence of positive emotions on these relations, and a validation study to show the discriminant and convergent validity of our predictors. Our research also has some limitations: Given the unique nature of the intangible product (e.g., insurance) sales context in our study, we cannot be certain how well our findings apply to tangible sales (e.g., retail) or non-sales settings. However, it seems plausible that socially-relevant traits would be beneficial to the high conscientiousness in other enterprising occupations (Holland, 1997). Finally, it is possible that the sales performance index created by the organization to assess sales performance inequitably rewards certain products over others. We believe this is quite unlikely, as the index was created and is maintained with the purpose of equating different products. But, future studies could replicate ours in a context including only products of one commission type. Future research also could test if these relations hold in other sales or non-sales environments, examine other-rated personality and social skill, and use other performance-related (e.g., customer service, adaptive, and contextual) outcomes.

References

- Alpers, G.W., & Eisenbarth, H. (2008). *PPI-R. Psychopathic Personality Inventory-Revised. Deutsche Version*. Goettingen: Hogrefe.
- Baranik, L.E., Stanley, L.J., Bynum, B.H., & Lance, C.E. (2010). Examining the construct validity of mastery-avoidance achievement goals: A meta-analysis. *Human Performance, 23*, 265–282.
- Barrick, M.R., Mount, M.K., & Judge, T.A. (2001). The FFM personality dimensions and job performance: Meta-analysis of meta-analyses. *International Journal of Selection and Assessment, 9*, 9–30.
- Becker, T.E. (2005). Potential problems in the statistical control of variables in organizational research: A qualitative analysis with recommendations. *Organizational Research Methods, 8*, 274-289.
- Blickle, G., John, J., Ferris, G.R., Momm, T., Liu, Y., Haag, R., Meyer, G., Weber, K., & Oerder, K. (2012). Fit of political skill to the work context: A two-study investigation. *Applied Psychology: An International Review, 61*, 295-322.
- Blickle, G., Wendel, S., & Ferris, G.R. (2010). Political skill as moderator of personality–job performance relationships in socioanalytic theory: Test of the getting ahead motive in automobile sales. *Journal of Vocational Behavior, 76*, 326-335.
- Bowen, C.C., Swim, J.K., & Jacobs, R.R. (2000). Evaluating gender biases on actual job performance of real people: A meta-analysis. *Journal of Applied Social Psychology, 30*, 2194–2215.
- Camara, W.J. (2003). Validity: Construct. In R. Fernández-Ballesteros (Ed.), *Encyclopedia of Psychological Assessment* (Vol. 2, pp. 1075-1078). London, UK: Sage.
- Carter, N.T., Guan, L., Maples, J.L., Williamson, R.L., & Miller, J.D. (2016). The downsides of extreme conscientiousness for psychological well-being: The role of obsessive compulsive tendencies. *Journal of Personality, 84*, 510-22.

- Cianci, A.M., Klein, H.J., & Seijts, G.H. (2010). The effect of negative feedback on tension and subsequent performance: The main and interactive effects of goal content and conscientiousness. *Journal of Applied Psychology, 95*, 618–630.
- Cohen, J., Cohen, P., West, S., & Aiken, L. (2003). *Applied multiple regression/correlation analysis for the behavioral sciences*. Mahwah, NJ: Lawrence Erlbaum.
- Cortina, J.M. (1993). Interaction, nonlinearity, and multicollinearity: Implications for multiple regression. *Journal of Management, 19*, 915-922.
- Costa, P.T., & McCrae, R.R. (1992). *Revised NEO personality inventory (NEO-PI-R) and NEO Five-Factor inventory (NEO-FFI) professional manual*. Odessa, FL: Psychological Assessment Resources, Inc.
- Curran, P., West, S. G., & Finch, J. (1996). The robustness of test statistics to nonnormality and specification error in confirmatory factor analysis. *Psychological Methods, 1*, 16–29.
- Dawson, J.F. (2014). Moderation in management research: What, why, when, and how. *Journal of Business and Psychology, 29*, 1–19.
- Day, D.V., & Silverman, S.B. (1989). Personality and job performance: Evidence of incremental validity. *Personnel Psychology, 42*, 25-36.
- Denis, P.L., Morin, D., & Guindon, C. (2010). Exploring the capacity of NEO PI-R facets to predict job performance in two French-Canadian samples. *International Journal of Selection and Assessment, 18*, 201-207.
- DeYoung, C.G., Quilty, L.C., & Peterson, J.B. (2007). Between facets and domains: Ten aspects of the Big Five. *Journal of Personality and Social Psychology, 93*, 880–896.
- Doherty, R. W. (1997). The emotional contagion scale: A measure of individual differences. *Journal of Nonverbal Behavior, 21*, 131–154.

- Dunkley, D.M., Blankstein, K.R., Zuroff, D.C., Lecce, S., & Hui, D. (2006). Self-critical and personal standards factors of perfectionism located within the five-factor model of personality. *Personality and Individual Differences*, 40, 409–420.
- Eid, M., Gollwitzer, M., & Schmitt, M. (2011). *Statistics and research methods* [Statistik und Forschungsmethoden]. Weinheim, Germany: Beltz.
- Fayard, J., Roberts, B.W., Robins, R.W., & Watson, D. (2012). Uncovering the affective core of conscientiousness: The role of self-conscious emotions. *Journal of Personality*, 80, 1–32.
- Fortunato, V.J. (2004). A comparison of the construct validity of three measures of negative affectivity. *Educational and Psychological Measurement*, 64, 271–289.
- Grant, A.M. (2013). Rethinking the extraverted sales ideal: The ambivert advantage. *Psychological Science*, 24, 1024-1030.
- Hambrick, E.P., & McCord, D.M. (2010). Proactive coping and its relation to the five-factor model of personality. *Individual Differences Research*, 8, 67-77.
- Hmel, B.A., & Pincus, A.L. (2002). The meaning of autonomy: On and beyond the interpersonal circumplex. *Journal of Personality*, 70, 277-310.
- Hogan, R. & Blicke, G. (2013). Socioanalytic theory. In N. D. Christiansen & R. P. Tett (Eds.), *Handbook of Personality at Work* (pp. 53-70). New York: Routledge.
- Hogan, J., & Holland, B. (2003). Using theory to evaluate personality and job-performance relations: A socioanalytic perspective. *Journal of Applied Psychology*, 88, 100-112.
- Holland, J. L. (1997). *Making vocational choices: A theory of vocational personalities and work environments* (3rd ed.). Odessa, FL: Psychological Assessment Resources.
- Hough, L. (1992). The “Big Five” personality variables—construct confusion: Description versus prediction. *Human Performance*, 5, 139-132.
- Hurtz, G., & Donovan, J. (2000). Personality and job performance. *Journal of Applied Psychology*, 85, 869-879.

- Jaccard, J., & Turrisi, R., (2003). *Interaction effects in multiple regression*. Newbury Park: Sage.
- Judge, T.A., & Erez, A. (2007). Interaction and intersection: The constellation of emotional stability and extraversion in predicting performance. *Personnel Psychology*, 60, 573-596.
- Judge, T.A., & Kammeyer-Mueller, J.D. (2012). On the value of aiming high: The causes and consequences of ambition. *Journal of Applied Psychology*, 97, 758-775.
- Kholin, M., Meurs, J., Blickle, G. Wihler, A., Ewen, C. & Momm, T. (in press). Refining the openness - performance relationship: Construct specificity, contextualization, social skill, and the combination of trait self- and other-ratings. *Journal of Personality Assessment*.
- Kiffin-Petersen, S.A., Jordan, C.L., & Soutar, G.N. (2011). The big five, emotional exhaustion and citizenship behaviors in service settings: The mediating role of emotional labor. *Personality and Individual Differences*, 50, 43–48.
- Le, H., Oh, I.-S., Robbins, S. B., Ilies, R., Holland, E., & Westrick, P. (2011). Too much of a good thing: Curvilinear relationships between personality traits and job performance. *Journal of Applied Psychology*, 96, 113–133.
- Lilienfeld, S.O., & Widows, M.R. (2005). *Psychological assessment inventory-revised (PPI-R)*. Lutz, FL: Psychological Assessment Resources.
- McManus, M.A., & Kelly, M.L. (1999). Personality measures and biodata: Evidence regarding their incremental predictive value in the life insurance industry. *Personnel Psychology*, 52, 137–148.
- Miller, J.D., & Lynam, D.R. (2012). An examination of the Psychopathic Personality Inventory's nomological network: A meta-analytic review. *Personality Disorders: Theory, Research, and Treatment*, 3, 305-326.
- Moshagen, M. (2012). The model size effect in SEM: Inflated goodness-of-fit statistics are due to the size of the covariance matrix. *Structural Equation Modeling*, 19, 86-98.

- Mount, M. K., Barrick, M. R., & Stewart, G. L. (1998). Five-factor model of personality and performance in jobs involving interpersonal interactions. *Human Performance, 11*, 145–165.
- Muthén, L., & Muthén, B. 1998-2012. *Mplus User's Guide (Seventh Edition)*. Los Angeles, Ca: Muthén & Muthén.
- Nemanick, R.C., Jr., & Munz, D.C. (1997). Extraversion and neuroticism, trait mood, and state affect: A hierarchical relationship? *Journal of Social Behavior & Personality, 12*, 1079–1092.
- Ng, T.W.H., & Feldman, D.C. (2010). Organizational tenure and job performance. *Journal of Management, 36*, 1220–1250.
- Novack, W., & Kammer, D. (1987). Self-presentation: Social skills and inconsistency as independent facets of self-monitoring. *European Journal of Personality, 1*, 61-77.
- Ostendorf, F., & Angleitner, A. (2004). *NEO-Persoenlichkeitsinventar nach Costa und McCrae, Revidierte Fassung [NEO Personality Inventory after Costa and McCrae, Revised]*. Goettingen, Germany: Hogrefe.
- Paunonen, S. V., Rothstein, M. G., & Jackson, D. N. (1999). Narrow reasoning about the use of broad personality measures for personnel selection. *Journal of Organizational Behavior, 20*, 389–405.
- Pearlman, K., Schmidt, F. L., & Hunter, J. E. (1980). Validity generalization results for tests used to predict job proficiency and training success in clerical occupations. *Journal of Applied Psychology, 65*, 373-406.
- Penney, L.M., David, E., & Witt, L.A. (2011). A review of personality and performance: Identifying boundaries, contingencies, and future research directions. *Human Resource Management Review, 21*, 297-310.
- Pierce, J.R., & Aguinis, H. (2013). The too-much-of-a-good-thing effect in management. *Journal of Management, 39*, 313–338.

- Peterson, N. G., Mumford, M.D., Borman, W.C., Jeanneret, P.R., Fleishman, E.A., Levin, K. Y., & Dye, D.M. 2001. Understanding work using the Occupational Information Network (O*NET): Implications for practice and research. *Personnel Psychology*, 54, 451–492.
- Riggio, R.E. 1986. Assessment of basic social skills. *Journal of Personality and Social Psychology*, 51, 649–660.
- Robie, C., & Ryan, A.M. (1999). Effects of nonlinearity and heteroscedasticity on the validity of conscientiousness in predicting overall job performance. *International Journal of Selection and Assessment*, 7, 157–169.
- Sackett, P.R., & Walmsley, P.T. (2014). Which personality attributes are most important in the workplace? *Perspectives on Psychological Science*, 9, 538-551.
- Samuel, D.B., Riddell, A.D.B., Lynam, D.R., Miller, J.D., & Widiger, T.A. (2012). A five-factor measure of obsessive-compulsive personality traits. *Journal of Personality Assessment*, 94, 456–465.
- Snyder, M. (1974). Self-monitoring of expressive behavior. *Journal of Personality and Social Psychology*, 30, 526-537.
- Tett, R.P., & Burnett, D.D. (2003). A personality trait-based interactionist model of job performance. *Journal of Applied Psychology*, 88, 500–517.
- Vinchur, A.J., Schippmann, J.S., Switzer, A.S., & Roth, P.L. (1998). Meta-analytic review of predictors of job performance for salespeople. *Journal of Applied Psychology*, 83, 586-597.
- Wang, M. W., & Stanley, J. C. (1970). Differential weighting: A review of methods and empirical studies. *Review of Educational Research*, 40, 663–705.
- Warr, P., Bartram, D., & Martin, T. (2005). Personality and sales performance: Situational variation and interaction between traits. *International Journal of Selection and Assessment*, 13, 87-91.

- Watson, D. & Clark, L.A. (1984). Negative affectivity: The disposition to experience negative aversive emotional states. *Psychological Bulletin*, 96, 465–490.
- Watson, D., Clark, L.A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology*, 54, 1063–1070.
- Watson, D., Stasik, S.M., Ellickson-Larew, S., & Stanton, K. (2015). Extraversion and psychopathology: A facet-level analysis. *Journal of Abnormal Psychology*, 124, 432-446.
- Witt, L.A. (2002). The interactive effects of extraversion and conscientiousness on performance. *Journal of Management*, 28, 835-851.
- Witt, L. A., & Ferris, G. R. (2003). Social skill as moderator of the conscientiousness–performance relationship: Convergent results across four studies. *Journal of Applied Psychology*, 88, 809–820.

Table 1

Means, Standard Deviations, Correlations, and Reliabilities of Study Variables

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6
1 Gender	0.87	.34						
2 Age	44.57	9.34	.19*					
3 Org. Tenure	12.51	8.20	.24*	.71**				
4 Positive Affectivity	3.84	.45	.02	.13	.09	(.81)		
5 Disciplined achievement motivation	3.70	.51	-.03	.14	.06	.57**	(.87)	
6 Stable social potency	2.86	.30	.00	.06	.01	.44**	.47**	(.75)
7 Objective Sales Performance	118,444.88	86,915.45	.17	.00	.20*	.00	.19*	.12

Note. $N = 114$ sales people; gender (0 = female, 1 = male).

* $p < .05$.

** $p < .01$.

Table 2

Hierarchical Regression Analyses

	Objective Sales Performance				
	Model 1	Model 2	Model 3	Model 4	Model 5
	β	β	β	β	β
Disciplined achievement motivation (DAM)	.18 ⁺	.18	.17	.06	.19
Stable social potency (SSP)	.03	.04	.04	-.09	-.03
SSP \times SSP		.03	-.02	.10	.13
DAM \times DAM		.00	-.03	-.07	-.10
DAM \times SSP			.08	.25	.22
DAM \times DAM \times SSP				.42*	.40*
Gender					.14
Age					-.33**
Organizational Tenure					.38**
Positive Affectivity (PA)					-.20
PA \times PA					.06
R^2	.04	.04	.04	.08	.21**
$F_{(R^2)} (df1, df2)$	2.22 (2, 111)	1.11 (4, 109)	.92 (5, 108)	1.54 (6, 107)	2.52 (11, 102)
ΔR^2		.00	.00	.04*	.13**
$F_{\Delta R^2} (df1, df2)$		0.04 (2, 109)	.20 (1, 108)	4.49 (1, 107)	3.47 (5, 102)

Note. $N = 114$ salespersons; gender (0 = female 1 = male); standardized regression-coefficients are reported.

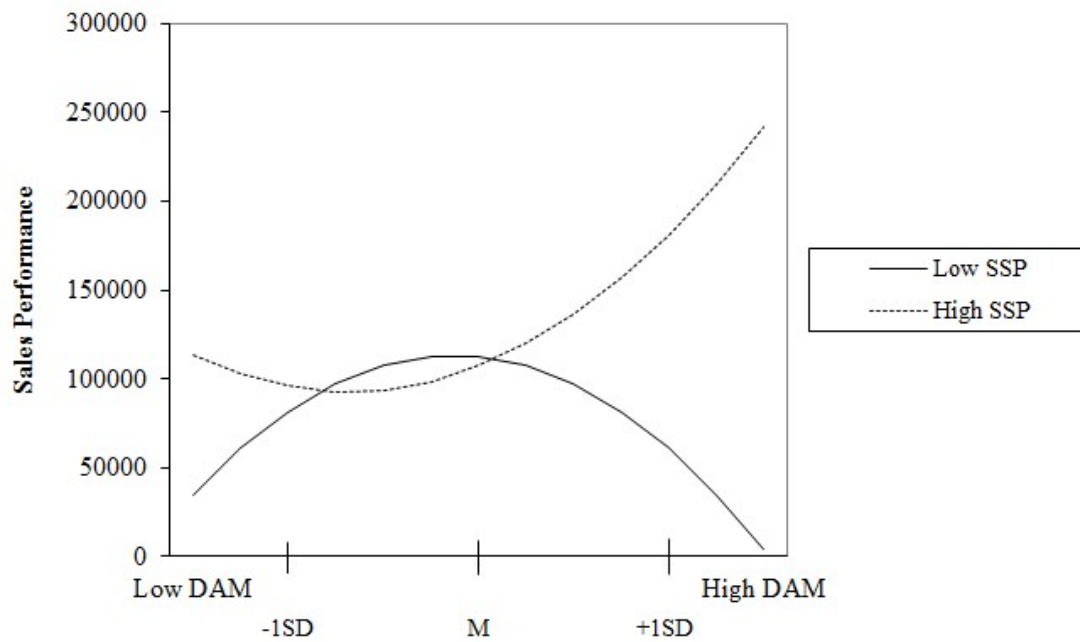
⁺ $p < .10$.

* $p < .05$.

** $p < .01$.

Figure 1

Curvilinear effect of Disciplined Achievement Motivation (DAM) moderated by Stable Social Potency (SSP) on Objective Sales Performance (with control variables).



$N = 114$; standardized inflection point of DAM at low levels of SSP = $-.13$; standardized inflection point of DAM at high levels of SSP = $-.69$.